

Knowledge for Change

José van Dijck
Utrecht University

Reflections on creating responsible digital societies in Europe

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Reflections on creating responsible digital societies in Europe

José van Dijck

Distinguished University Professor, Utrecht University, The Netherlands

e-mail: j.f.t.m.vanDijck@uu.nl

Introduction

Online digital platforms have deeply penetrated every sector in society, disrupting markets, labor relations and institutions, while transforming social and civic practices; and as we have experienced over the past two years, online dynamics are affecting the very core of democratic processes. The evolving digitization of society involve intense struggles between competing ideological systems and contesting societal actors – market, government and civil society – raising an important question: Who is or should be responsible and accountable for anchoring public values in digitized and datafied societies? I will particularly focus on the European challenge to govern platform societies which are increasingly dependent on global commercial infrastructures—ecosystems that are privatized and whose mechanisms are hidden from public view.

A new geopolitical order of platform ecosystems

The global online world is dominated by companies and by states. Two platform ecosystems dominate the online world in terms of geopolitics: American and Chinese. China governs an ecosystem that is controlled by the state and is operated by its own Big Five companies: Alibaba (the Chinese Amazon), Tencent (which operates WeChat), Baidu, Jingdon Mall, and Didi (the Chinese Uber). America has its own platform ecosystem, which is dominated by the Big 5 tech companies Alphabet-Google, Facebook, Amazon, Apple, and Microsoft. Over the past two decades, this powerful American-based ecosystem has spread to the rest of the world, and is dominant in Europe, most of Asia (except for China), Africa, and South-America. The two ecosystems hardly overlap, as the Chinese firewall strongly protects the internal market where state powers control private companies.

Squeezed in between USA and China is the European continent, which has very few major technology companies, and operates a relatively small percentage of all digital platforms. The corporate headquarters of the largest players by market capitalization are unevenly spread geographically: 47% are located in Asia, 36% in North America, but only 15% in Europe. Spotify, which originated in Sweden, is the only major European platform in the global Top 50 of influential players; just before it went public on the New York Stock Exchange, the Chinese tech firm Tencent bought a substantial part of Spotify. Europe has just a few ‘unicorns’—tech companies that are worth more than 1 billion dollars—besides Spotify; Adyen (pay service), BlablaCar (ride sharing) and Transferwise (money-transfer service) are names that are not very familiar to most of us. So by and large, Europe has become dependent on the American platform ecosystem, whose technical and commercial architecture is inscribed with neoliberal market values.

In terms of market value, the Big Five form the world’s 5th largest economy, after the US, China, Germany and Japan. But as I already stated, more than market value, the platform ecosystem is about societal power and influence. The Big Five increasingly act as

gatekeepers to all online social traffic and economic activities; their services influence the very texture of society and the process of democracy. In other words, they have gained rule-setting power. Over the past decade, tech companies have preferred to bypass the institutional processes through which societies are organized – sectoral regulation, public accountability, and responsibility – by claiming an exceptional status, arguing that their platforms do not fit regular categories. Until 2017, Facebook firmly denied its functioning as a ‘media company’ and Uber’s refusal to accept its status as a ‘transportation company’ had to be fought all the way up to the European court, where it was finally confirmed in December 2017. After many clashes with particularly European regulators and local and national legislators, digital tech companies are finally accepting – if only reluctantly – that power comes with societal responsibility.

We often hear from Silicon Valley CEOs that Europe is ‘cracking down’ on American Big Tech out of jealousy – like investor Peter Thiel commenting in *The Guardian* (March 15, 2018) on the European tendency to impose ever more regulation, thus hampering innovation. I like to propose a different stance on this issue: the American platform ecosystem hardly allows for public space on the internet and tends to favor commercial and private interests over public ones. Therefore, Europe *should* define its own governance strategy based on public values. Such strategy should not be considered an economic liability but rather an asset: a loss of public trust is ultimately a loss of business value. In the wake of the Cambridge Analytica scandal, Facebook lost an estimated 35–80 billion dollars in market value. As Mariana Mazzucato argues in her insightful book *The Value of Everything*, we need to reassess what constitutes *societal* value in addition to market value, because public value is integrally part of a nation’s economic strength. So my basic question is: How can European societies guard public values and the common good in an online world?

How does the American platform ecosystem work?

Before issuing several recommendations, let me first explain *how* the online world has become largely dependent on an American-based platform ecosystem. Platformization is an enormously complex phenomenon, which has disrupted not just markets and sectors, but has uprooted the very organizational design of democratic states. Therefore, we need to closely analyze the way in which platform ecosystems operate. Frankly, we still know too little about how the ecosystem operates technically, about its governance and business models. Over the past years, my research team based at the University of Amsterdam and the University of Utrecht have tried to analyze and map the American platform ecosystem, which turned out to be extremely difficult, because our object of research is a moving target – it changes constantly and is very volatile. Roughly put, the Big Five operate about one hundred strategic *infrastructural platforms*: social networks, web hosting, pay systems, login and identification-services, cloud services, advertising agencies, search engines, audiovisual platforms, map and navigating services, app stores, analytics services, and so on and so forth. Societies across the globe have come to depend on this infrastructure for organizing all societal sectors. Together, these infrastructural platforms are driving an ecosystem that is sector-agnostic and border-agnostic, but this infrastructure is crucial for many countries’ economies and democracies to function.

Besides owning and operating the infrastructural core of platforms, the Big Five also own and operate *sectoral platforms* that are increasingly interwoven with this online infrastructure. We have researched two public sectors (health and education) and two private sectors with a strong public impact (news and urban transport) and analyzed how platformization works in these sectors. Needless to say, platformization affects *all* sectors in society, including finance, retail, hospitality, and a lot more. The accumulation of platform power happens on two levels: (1) through ownership relations and partnerships between tech companies that operate both infrastructural and sectoral platforms and (2) through the invisible mechanisms underlying the platform ecosystem, such as the steering of data flows, envelopment of users, invisible selection criteria, and algorithmic lock-ins that facilitate path dependency. At both levels, power is exercised *between infrastructural and sectoral platforms*, as well as *across sectors*. Tech companies leverage control over data flows and algorithmic governance not just in a few major infrastructural platforms (e.g. Alphabet-Google in search and cloud services) but have spread these powers across many sectors (e.g. Google Apps for Education in primary education, Google Health in health research and fitness apps, Google Shopping in retail, etc). Unprecedented network effects across the global online ecosystem are thus gained through the potential of horizontal, vertical and ‘diagonal’ integration of data flows, creating user lock-ins and path-dependency.

Our research concludes that these invisible mechanisms underpinning the ecosystem are largely opaque and out of sight for users and governments. Platformization is overwhelmingly driven by commercial interests which often take precedence over societal values. Some of the main problems are an almost total lack of transparency into how data flows are steered between sectors, how algorithms influence user behavior, how selection mechanisms operate, and how business models work. And finally, our analysis of the health and education sectors showed that public sectors are rapidly privatizing by becoming an integral part of the American platform ecosystem.

What can Europe do?

Let me get back to my main question: What can European societies do to guard public values and the common good in an online world? Here are four recommendations. First, we need to articulate *what kind of public values we want to foreground* when designing an ideal digital society. Clearly, these are values such as privacy, security, and transparency; but we also need to include public values that are much broader, for instance because they pertain to democratic control of the public sphere, a level playing field for all actors, anti-discrimination rules, fairness in taxation and labor, and consumer protection. Public values are not a simple set of rules that you can buy ‘off the shelf’ and implement in society; on the contrary, they are disputed and negotiated at every level of governance – from single institutions such as schools and hospitals to local city councils, and from national governments to supra-national legislation. Since commercial interests are often the prime driver of the mechanisms underlying the platform ecosystem, it is important to articulate what public values are at stake and whose interests are served by which choice of governance. Each level of governance and each context will set different priorities in terms of which public values to pursue, but it is always crucial to articulate those before starting negotiations with platforms.

Digital societies cannot simply be governed as *markets*; markets are integral parts of societies that also encompass public space and public services. In 2016, the EU stated its Digitizing European Industry Initiative. This is a good beginning, but it is mostly about the role of European industries. What is still missing is a holistic view on platforms, stating which public values and common good European countries need to protect and what the EU wants from public as well as private sectors in a digitally connected world. In addition, each country should articulate a national digital policy that translates these general principles into specific conditions for negotiation. Every single day, national and local governments have to deal with new platforms entering our daily lives and defining our local transport, our schools and healthcare. These institutions and local bodies should be enabled to insert public values in the design of their platform policies.

A second recommendation is that European countries should take *a comprehensive approach to regulating platforms and data flows*. The European level is extremely important when it comes to protecting and enforcing public values in multi-sided platform markets. Over the past year, we have seen a firm enforcement of antitrust laws resulting in a substantial fine for Alphabet-Google for giving preference to its own retail service (Google Shopping) over other services (such as Amazon); we have accepted national and supranational measures against the pervasive spread of online fake news and hate speech. We have also seen the new privacy law (GDPR) taking effect in May 2018 – a piece of regulation that has made tech companies brace themselves for the European market.

These measures and laws are important and have proven effective so far; however, are they enough? Current legal frameworks are based on separate treatments of societal values. Indeed, competition and antitrust laws protect a level playing field; privacy law concentrates on citizens' right to privacy; we have consumer protection law, taxation laws, and trade law that each deal with a specific piece of legislation and enforcement. But the sum of each legal framework may not be sufficient to deal with the platform ecosystem as a whole. However substantial the EU fine for Alphabet-Google in the summer of 2017, the ruling did not do much to question the *nature* of Google's – or, for that matter, Amazon's, Apple's, Facebook's and Microsoft's – platform power in terms of how their infrastructural and sectoral platforms cause lock-ins across *all* sectors, not just retail. Therefore, we need to think of a more comprehensive, holistic approach which allows regulators to rethink the rule-setting powers of the Big Five platforms.

Empowering the public sector

My third recommendation concerns the *need to update regulatory frameworks*. I am not a legal scholar, but it is obvious that existing legal frameworks need an upgrade in the face of the technical changes occurring more rapidly than in any time in history. For one thing, the legal system is built on a division between infrastructures and sectors – a division that is important for antitrust-law. Indeed, Google unfairly favors its own services (Google Shopping) over those of its rivals. However, as I just showed, in the platform ecosystem, there is no longer a clear boundary between infrastructures and sectors. Antitrust law does not account for multi-directional data flows that run both between infrastructures and sectors and between sectors. Platform mechanisms may

create not only vertical integration and algorithmic lock-ins but may also enable personalized price discrimination as well as manipulate consumer choice.

Platformization is so powerful precisely *because* it is sector-agnostic, device-agnostic and border-agnostic. In order to update regulation within the EU, we need to look more principally at how platforms function in society and adapt our instruments accordingly. Mark Zuckerberg, defending Facebook in front of the American Congress and the Senate in March 2018, revealed that his company had recently changed its mantra from ‘Move fast and break things’ into ‘Move fast with stable infrastructure.’ But the point is, the boundaries between infrastructure and sectoral products and services have become inherently fluid; the same holds true for the boundaries between private and public sectors. Mechanisms such as combining data flows, algorithmic selection and envelopment – adding another group of customers on one side and using those revenues to reduce the price charged to another side of the platform – steer the invisible ‘underwater’ dynamics of the platform ecosystem. So the question is: are societies going to grant Facebook rule-setting power or will tech companies collaborate with European governments and civil society partners to define these principles, laws and rules?

My fourth recommendation pertains to *the empowerment of the public sector*. Can Europe do more besides regulation and enforcement? Perhaps governments could do more to stimulate the development of nonprofit and public platforms. When talking about the ‘governance of platforms’, we have three types of actors: market, state, and civil society. The so-called Rhineland model of governance, favoured in Western-European countries like The Netherlands and Sweden, is based on a balance between market, state, and civil society actors. However, the latter two are underrepresented in the current platform economy.

In order to prevent the outsourcing of important, particularly democratically vital, public tasks to a corporately-driven ecosystem, European states may need to stimulate civil society and public platforms. For instance, schools and universities could be stimulated to build their own open online course material, rather than adopting software and administrative monitoring systems that Google and Microsoft offers them ‘for free’ – or, more accurately, in exchange for the precious data of school children, teens, or young adults. And if hospitals relied more on their collective, collaborative power to share online resources and if they would insist on negotiating public values with companies *before* adopting any (commercial) data-analytics system, this might strengthen the public sector as such.

Schools and universities have a specific role in the empowerment of the public sector. Researchers at public universities should invest more in collaborating across disciplines and across sectors. Universities are traditionally organized along the lines of disciplines or domains, such as information science (technical sciences) and media and communication studies (humanities and social science). But challenges like platformization requires multi-disciplinary collaborations that combine various technical, legal, philosophical, and economic expertise.

The fifth recommendation is that European states and the EU should do more to *promote the formation of multi-stakeholder cooperatives* working towards a value-centric design of platforms. Estonia and Sweden are good examples when it comes to

government-stimulated tech innovation that involves all types of actors – state, market and civil society. As I said before, in order to tackle the complex challenge of fake news we should seek the collaboration of state, market and civil society actors in order to prevent and reduce the amount of misinformation currently propelled by the pervasive business models of commercial platforms. In March of 2018, a European High-Level Group published a recommendation that advocates such a multi-dimensional approach to the problem of digital disinformation. Particularly the involvement of public institutions (such as universities and hospitals) and civil society partners may help to remedy this problem, which can never be solved by Facebook alone, however powerful this platform is in the news sector. The recently published *White Paper on Digital Platforms*, published by the German Ministry of Economic Affairs and Energy, also promotes a multi-stakeholder approach. Investing in public institutions to develop their own platforms and technologies is crucial for many reasons, but one important motive is to close the knowledge gap and keep the public sector competitive for engineers.

Finally, there is a big challenge for universities and academics to come up with a comprehensive, collaborative approach towards researching a responsible digital society. Scholars from various disciplines cannot solve the complex problem of responsible digital societies from their exclusive technical, legal, philosophical or social science perspectives. They will need to learn how to collaborate – combine their expertise both methodologically and practically – to tackle questions of privacy-by-design, algorithmic governance, and trust in data use and storage. Malmö University is well situated and equipped to take on such a challenge. The city of Malmö is clearly one of the hotspots of emerging creative industries; startups in software development and gaming are multiple and the city's position in digital development is unique for collaboration with external partners. During my short stay at the university, I experienced a real interest and ambition to develop an interdisciplinary research program. The Data Society Research Program in many ways sets the agenda for an interdisciplinary and multifaceted approach to the big questions we are facing in the age of datafication, platformization and digitalization. By selecting three specific fields (culture, health and civics) the program pairs in-depth expertise with a broad ambition to combine the insights in different fields. The initiative also shows a very clear commitment to public values (e.g. raising questions of privacy in conjunction with security, efficiency of services vis-à-vis questions of surveillance). Moreover, faculty engaged with this program show a strong commitment toward working with local initiatives and civic society partners to experiment and test out several applications.

The Data Society Research Program may profit from other similar initiatives in Europe, like the Utrecht Data School (UDS) developed at Utrecht University (The Netherlands). Similar in focus and scope, UDS has managed to develop strong local ties with startup companies, municipalities, civil society organizations in journalism and government agencies to develop new analytical tools. Exchanging best practices among various universities will certainly increase the development of a European approach to responsible digital societies – societies with a strong focus on public values and a common good. Joining forces in academic consortia that have 'responsible digital societies' as a focus should perhaps become the goal of a COST-action program or a project application within the Horizon 2020 or FP9-framework.

Conclusion

In sum, Europe can indeed help to guard public values and the common good in an online world. It needs to proudly present a “public values first!” policy that clearly explicates where its stands on public values, public sectors, and the common good. That, of course, requires political will and courage. The ideal platform society does not exist, and it will be hard to reinvent the Western-European Rhineland model when it comes to rewiring the digital society’s infrastructural architecture. Indeed, this architecture is currently firmly entrenched in an American-based neoliberal set of principles, which defines its operational dynamics. If European countries and the EU as a supra-national force want to secure their ideological bearings, they need to start by unraveling the foundations of this ecosystem’s underpinning mechanisms in order to rebuild and fortify the legal and regulatory structures built on this foundation.

Governing digital societies in Europe takes a serious effort at all levels, from local municipalities to national governments, from schools to collaborating universities, and from city governments all the way to the geopolitical level. Squeezed in between the Chinese ecosystem and the American one, Europe will need to realize to what extent it can put its own stamp on the digital society’s architectural design. Public values and the common good are the very stakes in this struggle over the platformization of societies around the globe. Governments and independent public institutions can and should be proactive in negotiating those values on behalf of citizens and consumers.

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